

## ELIZABETH M. ZIPPI

Department of Chemistry and Physics  
Louisiana State University in Shreveport  
Shreveport, LA 71115  
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### EDUCATION

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- Jul 2002 **DIOCESE OF SHREVEPORT GRECO INSTITUTE** Shreveport, LA  
Certificate in Catholic Studies/Scripture Concentration
- May 1991 **UNIVERSITY OF TENNESSEE** Knoxville, TN  
Ph.D. Organic Chemistry GPA 3.97/4.0  
*Polymer-Based Substrates for Potential Generation of Nitrogen-13 for PET*  
Research Advisor: Professor George W. Kabalka
- May 1987 **INDIANA UNIVERSITY OF PENNSYLVANIA** Indiana, PA  
B.S. Chemistry/Minor Mathematics GPA 3.94/4.0 (*Summa Cum Laude*)  
Research Advisors: Professors Donald McKelvey and Robert A. Patsiga

### EXPERIENCE

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- Jul 1994-Present **LOUISIANA STATE UNIVERSITY** Shreveport, LA Professor  
*Aug 2022-Present Interim Chairperson of the Department of Chemistry and Physics*  
*Aug 2004-Present Professor of Organic and Polymer Chemistry*  
*Aug 1999-Aug 2004 Associate Professor of Organic and Polymer Chemistry*  
*Jul 1994-Aug 1999 Assistant Professor of Organic and Polymer Chemistry*
- Jan-May 1994 **KUTZTOWN UNIVERSITY** Kutztown, PA  
*Jan-May 1994 Temporary Assistant Professor, Organic Chemistry*
- Jun 1991-Dec 1993 **LAWRENCE BERKELEY LABORATORY** Berkeley, CA  
*Jun 1991-Dec 1993 Postdoctoral Research Assistant at the National Tritium Labeling Facility*  
Research Advisor: Professor David Wemmer  
Advisory Board Member: Professor Melvin Calvin  
*Jun 1992-Jun 1993 Special Staff Scientist at the Center for Functional Imaging*  
Research Advisor: Dr. Thomas Budinger
- Aug 1987-May 1991 **UNIVERSITY OF TENNESSEE** Knoxville, TN  
*Dec 1987-May 1991 Graduate Research Assistant*  
*Aug 1990-May 1991 Graduate Teaching Assistant, Honors General Chemistry Laboratory*  
*Aug 1988-Feb 1990 Instrument Operator of 200-MHz Nicolet NMR Spectrometer*  
*Aug 1987-May 1988 Graduate Teaching Assistant, General Chemistry Laboratory*

### ADDITIONAL EXPERIENCE

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- Aug-Dec 1993 **VISTA COLLEGE** Berkeley, CA  
*General Chemistry Instructor and Biotechnology Curriculum Coordinator*
- Sep-Nov 1992 **SANDOZ LTD.** Basle, Switzerland  
*Visiting Scientist*  
Research Advisor: Dr. Henrik Andres
- Jun-Aug 1992 **CALIFORNIA STATE UNIVERSITY** Hayward, CA  
*General Chemistry Instructor*
- Oct 1989-Aug 1990 **CTI CYCLOTRON SYSTEMS, INC.** Berkeley, CA  
Consultant
- Mar-Aug 1990 **UNIVERSITY OF CALIFORNIA** Berkeley, CA  
Visiting Scholar with Professor Henry Rapoport

### GRANTS

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| <i>EXTERNAL GRANTS (Principal Investigator unless otherwise indicated)</i> | <b>\$754,360</b> |
| 2005 BoRSF Enhancement Grant (Co-PI)                                       | \$737,957        |
|  | \$76,600         |

2005	BoRSF Enhancement Grant (Co-PI)	\$103,000
2005	BoRSF Enhancement Grant (Co-PI)	\$ 63,400
2002	BoRSF Enhancement Grant (Co-PI)	\$ 64,099
2002	BoRSF Enhancement Grant (Co-PI)	\$ 59,536
2002	BoRSF Enhancement Grant (Co-PI)	\$ 27,330
2000	BoRSF Enhancement Grant	\$ 68,210
1998	BoRSF Research Grant	\$ 52,000
1997	Faculty Mentor, American Heart Association, Louisiana Affiliate	\$ 1,532
1997	Dreyfus Foundation Special Grant Program in Chemical Sciences	\$ 15,000
1996	Biomedical Research Foundation Instrument Grant	\$ 50,000
1996	Biomedical Research Foundation Research Grant	\$ 22,000
1996	LEQSF Instrument Grant	\$120,000
1993; 2000	Cambridge Isotope Laboratories, Inc. Research Grant	\$ 10,000
1993	Cambridge Isotope Laboratories, Inc. Research Grant (Co-PI)	\$ 5,250
<i>INTERNAL GRANTS (Principal Investigator unless otherwise indicated)</i>		<i>\$16,403</i>
Spring 2005	Faculty Research Grant	\$ 500
Spring 2004	Faculty Research Grant	\$ 500
Spring 2003	Faculty Research Grant	\$ 500
Spring 2002	Faculty Research Grant	\$ 540
Spring 2001	Faculty Research Grant	\$ 400
Spring 1998	Faculty Research Grant	\$ 400
Spring 1998	Faculty Development Grant	\$ 400
Fall 1997	Technology Fee Fund (Co-PI)	\$ 995
Fall 1997	Technology Fee Fund (Co-PI)	\$ 6,856
Summer 1997	Faculty Research Grant	\$ 400
Fall 1996	Faculty Development Grant	\$ 500
Summer 1996	Faculty Research Grant	\$ 500
Fall 1995	Faculty Research Grant	\$ 365
Fall 1995	Faculty Development Grant	\$ 672
Summer 1995	Faculty Research Grant	\$ 600
1995	Faculty Mentor for LSU-S Undergraduate Fellowship Award	\$ 1,500
Spring 1995	Faculty Research Grant	\$ 500
Spring 1995	Faculty Development Grant	\$ 275

## **HONORS**

College Awards Ceremony Platform Party (2019); IUP Delegate at Inauguration of GSU President (2005); Omicron Delta Kappa Honor Society (2002); LSUS Outstanding Faculty Award for Service (2001); LSUS Outstanding Faculty Award for Research (1998); IUP College of Natural Sciences & Mathematics Alumni Ambassador Award (1997); Phi Kappa Phi Honor Society (1997); Recognized as an Accomplished Woman in Shreveport Area by KDAQ Radio (National Women's Week, 1997); LSUS Outstanding Faculty Award for Teaching (1996); National Research Service Award (1992); UT Chemistry Merit Awards (1988, 1989); Society of Analytical Chemists of Pittsburgh Undergraduate Award to an Outstanding Senior (1987); Science Alliance Summer Research Fellowships (1986, 1987); IUP Academic Achievement Awards (1985-87); IUP Honor Student (1994-97); Dean's List (1983-87); Kappa Delta Pi Honor Society (1984)

## **ACTIVITIES**

**Professional:** American Chemical Society (1985-Present); Northwest Louisiana Section of ACS (1994-Present); Chair-Elect 1998; Chair 1999, 2002; Secretary 2000-Present); Louisiana Academy of Sciences (1997-Present); Society of Catholic Scientists (2017-Present); ACS Organic Division (2001-2004); ACS Nuclear Chemistry and Technology Division (1993-2000); 211th ACS National Meeting, Co-Chair Organic Session (1996); Council on Undergraduate Research (1994-1996); ACS Polymer Division (1988)

### **LSUS:**

*Current:* Interim Chair of Department of Chemistry and Physics; Chair of Admissions and Standards Committee; Chair of College Courses and Curricula Committee; College Scholarship Committee; Coordinator of Organic Chemistry; Faculty Co-Sponsor for Chemistry Club; Faculty Co-Sponsor and Liturgist for Catholic Student Union

*Past:* Secretary of Faculty Senate; Policy and Personnel Committee; Secretary of University Courses and Curricula Committee; University Graduate Council; Vision & Quest Task Force; Task Force on Advising; College Graduate Council; College Online Teaching Committee; Health Sciences Advisory Committee; Dean and Faculty Search Committees; Tenure Review Committees

Community:

*Current:* Vice President of St. Elizabeth Ann Seton Parish Pastoral Council; St. Elizabeth Ann Seton Parish Liturgy Committee; Judge at Louisiana Region I Science and Engineering Fair; Judge at Louisiana Region I Social Studies Fair

*Past:* Shreveport Catholic Diocese Diocesan Pastoral Council; St. Joseph School Education Council; St. Joseph School PTO Chair of Policy and Procedure Committee; St. Mary of the Pines Education Board; Greco Institute GIFT Adjunct; VBS Volunteer/Teacher

**PUBLICATIONS**

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1. "Analysis of Poly(Styrene Sulfonic Acid)," Zippi, E.M. J. Undergrad. Chem. Res., **in preparation**.
2. "Sulfonation Methods for Poly(Styrene/Divinylbenzene) Beads," Zippi, E.M.; Cheek, H.C.; May, R.; Morgan, R.; Kamperman, E.; Tibbets, C. and Crews, D. J. Undergrad. Chem. Res., 2005, 4:2, 43.
3. "Synthesis of [<sup>13</sup>C<sub>6</sub>]Poly(styrene) for PET," Zippi, E.M. and Kamperman, E. Proceedings of the Louisiana Academy of Sciences, 2004, 65,14.
4. "Preparation of a Carbon-13 Target Material from C-13-Benzene," Zippi, E.M. and Pilcher, A. Proceedings of the 9th International Workshop on Targetry and Target Chemistry, Turku, Finland, May 2002, 78.
5. "Differential Scanning Calorimetry of Styrene-Based Polymers," Hoffmeyer, M.R.; Jones, G. and Zippi, E.M. J. Undergrad. Chem. Res., 2002, 3, 137.
6. "Synthesis of <sup>13</sup>C-Labelled Cinnamionitrile," Zippi, E.M. and Kamperman, E. J. Labelled Compds. and Radiopharm., 2002, 45, 103.
7. "Synthesis of [<sup>13</sup>C<sub>6</sub>]Styrene," Zippi, E.M. J. Labelled Compds. and Radiopharm., 2001, 44, 757.
8. "Multi-Particle Bombardment and In-target Chemistry of Porous Carbon Materials," Alvord, C.W.; Bida, G.T.; Wieland, B.W. and Zippi, E.M. Proceedings of the 7th International Workshop on Targetry and Target Chemistry, Heidelberg, Germany, June 1997, 104.
9. "Decomposition of Carbon-Rich Target Materials," May, R.; Alvord, C.W.; Zippi, E.M. and Bida, G.T. Proceedings of the 7th International Workshop on Targetry and Target Chemistry, Heidelberg, Germany, June 1997, 112.
10. "Independent Organic Laboratory Experiments," Zippi, E.M. and Rogers, D. J. College Science Teaching, 1997, 26:6, 374.
11. "An Advanced Undergraduate Multistep Synthesis of Poly(Styrene)," Zippi, E.M., Grover, J., Valiulis, M.B. and Cheek, H.C. Microchemical Journal, 1997, 55.
12. "Synthesis, Characterization and Pyrolysis of Poly(Styrene) Derivatives," Zippi, E.M. and Kabalka, G.W. Carbon, 1996, 34, 1539.
13. "Functionalization of Cross-linked Poly(Styrene) in the Preparation of a PET Target Material," Zippi, E.M., Grover, J., Valiulis, M.B., Tibbets, C. and Kabalka, G.W. Appl. Radiat. Isotopes, 1996, 47, 513.
14. "Biotechnology at Vista College," Zippi, E.M. and Deneris, J. J. College Science Teaching, 1995, 25:2, 86.
15. "Synthesis of Carbon-13 Sulfonated Poly(Styrene/Divinylbenzene) for Production of a Nitrogen-13 Target Material," Zippi, E.M., Valiulis, M.B. and Grover, J. Proceedings of the 6th International Workshop on Targetry and Target Chemistry, Vancouver, B.C., August 1995, 185.

16. "Preparation and Use of Lithium Tritide and Lithium Trimethoxyborotritide," Zippi, E.M., Andres, H., Morimoto, H. and Williams P.G. Synth. Commun., 1995, 25:17, 2685.
17. "Deiodination Reactions using Tributyltin Hydride for Potential Labelling Experiments," Zippi, E.M., Plourde, II., G.W. and Satyamurthy, N. J. Labelled Compds. and Radiopharm., 1995, 36:4, 361.
18. "Application of Fullerenes in Biomedical Imaging," Bida, G.T.; Satyamurthy, N. and Zippi E.M. Chemists' Views of Imaging Centers, Emran, A.M. et al., Plenum Press, New York, 1995, 323.
19. "Carrier-Free Tritide Reagents from Lithium Tritide," Andres, H., Morimoto, H., Williams, P.G. and Zippi, E.M. Synthesis and Applications of Isotopically Labelled Compounds, Allen, J. and Voges, R., Wiley, New York, 1995, 83.
20. "Lithium Hydride and Lithium Trimethoxyborohydride: A Comparative Study of Their Reducing Power," Zippi, E.M. Synth. Commun., 1994, 24:17, 2515.
21. "Preparation and Use of Tritiated Schwartz' Reagent (ZrCp<sub>2</sub>Cl<sup>3</sup>H)," Zippi, E.M.; Andres, H.; Morimoto, H. and Williams, P.G. Synth. Commun., 1994, 24:7, 1037.
22. "[<sup>13</sup>N]Ammonia Production via Deuteron Irradiation of Buckminsterfullerene," Bida, G.; Satyamurthy, N. and Zippi E. Proceedings of the 5th International Workshop on Targetry and Target Chemistry, Brookhaven, NY, September 1993, 183.
23. "Deuteron-Irradiation of Carbonized Poly(Styrene/Divinylbenzene) Resins for In-Target Production of N-13 Ammonia," Zippi, E.; Kabalka, G.; Bida, G.; Satyamurthy, N. and Wieland, B. Int. J. Radiat. Appl. Instrum. Part A 1992, 43, 1363.
24. "In-Target Production of N-13 Ammonia via Proton Irradiation of Dilute Aqueous Ethanol and Acetic Acid Mixtures," Wieland, B.; Bida, G.; Padgett, H.; Hendry, G.; Zippi, E.; Kabalka, G.; Morelle, J-L.; Verbruggen, R. and Ghyoot, M. Int. J. Radiat. Appl. Instrum. Part A 1991, 42, 1095.
25. "Development of Carbonized Polymer Beads for Generation of Nitrogen-13," Zippi, E.M.; Bida, G.T.; Wieland, B.W. and Satyamurthy, N. Proceedings of the 4th International Workshop on Targetry and Target Chemistry, Villigen, Switzerland, September 1991, 143.

## **ABSTRACTS**

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1. "Quantitative Specific Gravity Analysis of Rosemary in Ethanol Solutions," Zippi, E.M. and McMullen, M. National American Chemical Society Meeting, Chicago, IL, August 2022.
2. "Specific Gravity and Refractive Index Studies of *Salvia Rosmarinus* in Ethanol," Zippi, E.M. and Marsalis, A. National American Chemical Society Meeting, San Diego, CA, March 2022.
3. "Spectroscopic Analysis of Poly(Styrenes)," Zippi, E.M. and Laderoot, L. Louisiana Academy of Sciences Meeting, Grambling, LA, March 2005.
4. "Preparation and Analysis of Brandy from Wine," Thompson, C., Barrow, B. and Zippi, E.M. Louisiana Academy of Sciences Meeting, Lake Charles, LA, March 2004.
5. "Crystalline Melt Temperature Analysis of Styrene-Based Polymers," Moore, C.R., Jones, G. and Zippi, E.M. Louisiana Academy of Sciences Meeting, Gonzales, LA, March 2003.
6. "Thermal Analysis of <sup>13</sup>C-Enriched Styrene-Based Polymers," Jones, G. and Zippi, E.M. Louisiana Academy of Sciences Meeting, Baton Rouge, LA, March 2002.
7. "Synthesis of Poly(styrene) for PET," Zippi, E.M. and Kamperman, E. Louisiana Academy of Sciences Meeting, Monroe, LA, February 2001.
8. "Pyrolysis of Poly(styrene sulfonic acid) for Application in PET," Zippi, E.M. and Hoffmeyer, M. Louisiana Academy of Sciences Meeting, Shreveport, LA, February 2000.

9. "Sulfonation of Porous Poly(styrene) for use in PET," Zippi, E.M.; May, R.; Hoffmeyer, M.; Landry, P.; Stone, H. and Thompson, J. Louisiana Academy of Sciences Meeting, Monroe, LA, February 1999.
10. "Nitrogen-13 Production from Porous Poly(Styrene/Divinylbenzene) for use in Positron Emission Tomography," Chambers, E.; Hoffmeyer, M.; Brewster, C. and Zippi, E.M. 215th National American Chemical Society Meeting, Dallas, TX, March 1998.
11. "Exchange Capacities of Ion Exchange Resins in the Preparation of a PET Target Material," May, R. and Zippi, E.M. Louisiana Academy of Sciences Meeting, Alexandria, LA, February 1997.
12. "Sulfonation Methods for Poly(Styrene/Divinylbenzene)," Cheek, H.C., Tibbets, C. and Zippi, E.M. 211th National American Chemical Society Meeting, New Orleans, LA, March 1996.
13. "Dehalogenation Through Hydride Chemistry: Results of 2,4-Dinitro-1-iodobenzene at Room Temperature and at -10 °C Using Tributyltin Hydride," Plourde, II, G. and Zippi, E. 71st Pennsylvania Academy of Science Meeting, White Haven, PA, April 1995.
14. "The Biotechnology Technician Program at Vista College," Zippi, E.M. and Deneris, J. 50th Southwest Regional American Chemical Society Meeting, Fort Worth, TX, November 1994.
15. "Lithium Tritide: Tritium Labelling via Hydride Chemistry," Zippi, E.M.; Andres, H.; Williams, P.G. and Morimoto, H. 25th Central Regional American Chemical Society Meeting, Pittsburgh, PA, October 1993.
16. "Application of Tritiated Schwartz' Reagent ( $ZrCp_2Cl^3H$ ) for Labelling of Macrocyclic Molecules," Zippi, E.M.; Andres, H.; Williams, P.G. and Morimoto, H. 205th National American Chemical Society Meeting, Denver, CO, April 1993.
17. "Tritiated Tin Hydrides and Silanes," Jaiswal, D.K.; Zippi, E.M.; Morimoto, H.; Williams, P.G. and Andres, H. International Symposium on Tritium Synthesis, NMR and Applications: International Isotope Society and the Kent and Surrey Collaborative Project in Magnetic Resonance, University of Surrey, Guildford, U.K., July 1992.
18. "Tritium Incorporation Through the Use of Hydride Chemistry," Zippi, E.M.; Andres, H.; Williams, P.G. and Morimoto, H. 203rd National American Chemical Society Meeting, San Francisco, CA, April 1992.
19. "Development of Polymer-Based Substrates for the Potential Generation of Nitrogen-13 for Application in Positron Emission Tomography," Zippi, E.; Kabalka, G.; Wieland, B.; Bida, G. and Satyamurthy, N. 201st National American Chemical Society Meeting, Atlanta, GA, April 1991.
20. "Efficient In-Target Production of N-13 Ammonia Using Intense Proton Beams on Dilute Mixtures of Ethanol and Natural Water," Wieland, B.; Bida, G.; Padgett, H.; Hendry, G.; Zippi, E.; Kabalka, G.; Morelle, J-L.; Verbruggen, R. and Ghyoot, M. 8th International Symposium on Radiopharmaceutical Chemistry, Princeton, NJ, June 1990 (Addendum to submitted abstract "An Automated Labelled Compounds Production System for Positron Emission Tomography").
21. "Synthesis of Compounds Capable of Aromatization," Zippi, E. and Patsiga, R. Intercollegiate Student Chemists' Convention, University of Delaware, April 1987.

## **PRESENTATIONS**

1. "Department of Chemistry and Physics Assessment Report 2022," Zippi, E. College of Arts and Sciences Assessment Day, Louisiana State University, Shreveport, LA, October **2022**.
2. "The Our Lady of Mount Carmel Festival: An Italian-American Tradition (with The Chemistry of Fireworks)," Zippi, E. College of Arts and Sciences Lecture Series, Louisiana State University, Shreveport, LA, February **2019**.
3. "Candle Chemistry," Zippi, E. Maryhill Renewal Center OCDS, Pineville, LA, October **2018**.

4. "How Fireworks Work: The Chemicals in Fireworks," Zippi, E. St. Elizabeth Ann Seton Church, Shreveport, LA, October **2018**.
5. "Chemicals Found in Fireworks," Zippi, E. Maryhill Renewal Center OCDS, Pineville, LA, August **2018**.
6. "The Science of Fatty Acids," Zippi, E. Southwood High School, Shreveport, LA, April **2016**.
7. "The Chemistry of Food," Zippi, E. American Chemical Society Northwest Louisiana Section, Shreveport, LA, April **2013**.
8. "Food Chemistry," Zippi, E. College of Arts and Sciences Lecture Series, Louisiana State University, Shreveport, LA, October **2013**.
9. "The Grignard Reaction: Why is Doing it in the Lab Harder than it Appears to be on Paper," Zippi, E. Department of Chemistry & Physics Seminar Series, Louisiana State University, Shreveport, LA, March 8, 2001.
10. "Optimization of a Grignard Reaction," Zippi, E. Department of Chemistry, Indiana University of Pennsylvania, Indiana, PA, August 7, 2000.
11. "Preparation and Use of Two Tritide Reagents," Zippi, E. American Chemical Society Northwest Louisiana Section, Shreveport, LA, October 27, 1998.
12. "Carbon Materials used for Production of Nitrogen-13 for PET," Zippi, E. Department of Chemistry Seminar Series, Centenary College, Shreveport, LA, April 14, 1998.
13. "Radiopharmaceuticals used in PET," Zippi, E. Department of Chemistry & Physics Seminar Series, Louisiana State University, Shreveport, LA, March 2, 1998.
14. "Women in Science," Zippi, E. Department of Chemistry, Indiana University of Pennsylvania, Indiana, PA, October 17, 1997.
15. "Advanced NMR Techniques for Sophomore Organic," Zippi, E. Department of Chemistry & Physics Seminar Series, Louisiana State University, Shreveport, LA, February 27, 1997.
16. "Biomedical Applications of Radiochemistry," Zippi, E. Department of Chemistry, Jackson State University, Jackson, MI, November 15, 1996.
17. "Women Scientists in the 20th Century," Zippi, E. Department of Chemistry & Physics Seminar Series, Louisiana State University, Shreveport, LA, September 17, 1996.
18. "Nuclear Chemistry in Medicine," Zippi, E. Department of Chemistry, Indiana University of Pennsylvania, Indiana, PA, April 3, 1996.
19. "Interpretation of 2D NMR Spectra," Zippi, E. Department of Chemistry & Physics Seminar Series, Louisiana State University, Shreveport, LA, October 3, 1995.
20. "Applications of Radiochemistry in Nuclear Medicine," Zippi, E. Biomedical Research at LSU Medical Center, Louisiana State University, Shreveport, LA, February 3, 1995.
21. "Medical Applications of Radiochemistry," Zippi, E. Department of Chemistry and Physics, Louisiana State University, Shreveport, LA, February 18, 1994.
22. "Applications of Nuclear Chemistry in Medicine," Zippi, E. Department of Chemistry, Kutztown University, Kutztown, PA, December 10, 1993.
23. "Polymer-Based Substrates for Generation of Nitrogen-13/Advances in Tritide Chemistry," Zippi, E. Department of Chemistry, California State University, Hayward, CA, April 22, 1992.
24. "Advances in Hydride Chemistry," Zippi, E. National Tritium Labeling Facility, Lawrence Berkeley Laboratory, Berkeley, CA, August 30, 1991.

25. "Polymer-Based Substrates for the Potential Generation of Nitrogen-13 for Positron Emission Tomography," Zippi, E. The University of Tennessee Medical Center Biomedical Imaging Center, Knoxville, TN, April 4, 1991.
26. "Isotope Production for Positron Emission Tomography," Wieland, B.; Bida, G.; Zippi, E. Bio-Rad Laboratories, Richmond, CA, October 5, 1990.
27. "Use of Carbon-13 Enriched Poly(Styrene/Divinylbenzene) Resins for Cyclotron Production of Nitrogen-13 for Applications in Positron Emission Tomography," Zippi, E. CTI Cyclotron Systems, Berkeley, CA, December 7, 1989.
28. "Generation of Nitrogen-13 via Proton Irradiation of Carbonized Polymers," Zippi, E. The University of Tennessee Medical Center Biomedical Imaging Center, Opening Ceremony, Knoxville, TN, June, 1988.